

In the Drawings:

Please amend Figure 4B as shown in the enclosures. A clean copy of amended Figure 4B (labeled "Replacement Sheet") and a marked-up copy of Figure 4B (labeled "Annotated Sheet") showing the amendments in red are attached hereto.

REMARKS

The applicants have carefully considered the Office action dated February 3, 2006, and the references applied to the claims thereby. By way of this response, claims 63, 134, 139, 144, 149, 155, 161, 167, 172 and 177 have been amended, new claims 182-193 have been added, and claims 34, 36, 70-72, 79-81, 94, 95, 102 and 123 have been canceled without prejudice. In view of the following, it is respectfully submitted that all pending claims are in condition for allowance and favorable reconsideration is respectfully requested.

Claims 1-14, 68-69, 73-76, 77-78, and 82-90

The Office action rejected claims 1-14, 68-76 and 77-90 as being anticipated by Williams (US 5,945,988). The applicant respectfully traverses these rejections.

Williams describes methods and apparatus for determining and dynamically updating user preferences in an entertainment system. Because Williams is used as the basis of the rejections, a review of the cited portions of Williams is appropriate.

In one implementation, system controller 104 uses only that information in the behavior log which has been stored since the later of system controller 104 last being turned on and system controller 104 last identifying a particular user. In step 306, system controller 104 identifies whether the information of the behavior log matches that of the data for any of the known system users. In one embodiment, system controller 104 calculates a user metric for the information in the behavior log and the current system settings as well as for each of the known system users. If there is greater than a predetermined probability that the information in the behavior log matches the user profile of one of the known users, system controller 104 determines that a match has been made and, in step 308, configures system 100 in accordance with the user preference information of the user profile database 700. (Williams 9:15-30)

Sentence one (1) describes a portion of a behavior log used to determine which user is currently using the system. Sentence two (2) describes the matching of the portion of the behavior log to data for any of the known system users. Sentence three (3) describes computing a user metric representative of the match for each of the users. Sentence four (4) means that if the match of one of the users is greater than a predetermined value, a match has been made and the user's corresponding preferences applied. No where in this portion does Williams describe prompting of a user.

To generate the metric, in one embodiment of the present invention, each of the configurable options is given a different predetermined weight and the weighted values are added together. By way of example, the television channel being viewed may be given a higher weight than the volume of the channel. This sum of weighted values is compared to a predetermined value and, if the sum exceeds the predetermined value, then the system controller 104 considers a match to be found. (Williams 9:43-51)

Sentence one (1) describes generating the metric by weighting configurable options. Sentence two (2) describes an example weighting in which a TV channel is weighted higher than a volume of the channel. Sentence three (3) describes an example in which the weighted values are compared to a predetermined value to determine if a match is found. No where in this portion does Williams describe prompting of a user.

In one embodiment of the present invention, the user is prompted for verification of the match in step 306 by system controller 104. For example, system controller 104 may provide a window on television/monitor 102 wherein a number of pictures of possible system users are displayed, wherein the first picture displayed is that which system controller 104 has identified as the most likely system user, requesting that the user affirmatively respond (e.g., via remote control or voice command) when their picture is displayed; or alternatively, system controller 104 may provide an audio prompt in the form of a question, e.g., "Is that you, Joe?". If the match is verified as being accurate, then system controller 104 proceeds to configure the system in step 308. Otherwise, system controller 104 returns to step 302 to continue monitoring user interaction with system 100. (Williams 9:64-10:12)

Sentence one (1) describes an implementation where the user is prompted to verify a presumably correct match made in step 306. Sentence two (2) describes an example prompt containing a number or pictures of users are displayed where the most likely user is displayed first. Sentence two (2) also describes an alternative prompt to the most likely user to confirm their presence. Sentence three (3) describes that the system can confirm that a response to the prompt matches the presumably correct match and if the response matches proceeds. Sentence four (4) describes that if the response does not match that the system continues monitor user interactions.

While the foregoing section of Williams describes prompting based up the probability that a user is present, the prompting of Williams is based upon the probability being greater than something. In particular, if the prompt contains the pictures of all possible users, the probability need not be compared to anything. If the prompt contains multiple pictures with the most probable presented first, the most probable is determined by the probability being greater than the probability associated with all the other potential users. If the prompt is used to confirm a presumable correct decision, e.g., "Is that you, Joe?", then the person prompted is again determined by their probability being greater than all other potential users. Thus, as described in the above cited portion of Williams, prompting is based upon the probability of the user being greater than something.

Returning now to FIG. 2, having provided programming suggestions, as appropriate in step 208, system controller 104 continues to monitor user interaction with system 100 until system controller 104 detects a new user, step 220. In the illustrated embodiment, system controller 104 continues to monitor user interaction with system 100 and determine whether a new user is detected until system 100 is turned off.

FIG. 3 illustrates the steps followed by system controller 104 in determining which of a plurality of system users is currently using system

100, in accordance with one embodiment of the present invention. In particular, FIG. 3 illustrates steps 204 and 220 of FIG. 2 in more detail, in accordance with one embodiment of the present invention. As depicted, the method begins with system controller 104 monitoring user interaction with system 100 and checking current system settings, step 302. This monitored user information is stored in a behavior log, as discussed in more detail below. In step 304, system controller 104 compares the information contained in the behavior log as well as the current system settings with user preference information for at least a subset of the plurality of entertainment system users. In one embodiment, the plurality of user profiles are stored locally, in system 100, and the entire user profile is used to determine which user is using the entertainment system. In an alternate embodiment, system controller 104 may load into a memory a select subset of user preference information for a first subset of the plurality of entertainment system users, and, if a match is not found, loads a subset of user preference information from a subsequent subset of the plurality of entertainment system user profiles until a match is found. Information available on the known system users is contained in a user profile database (e.g., user profile database 700) which may reside locally within system 100, or may reside at remote location. (Williams 8:49-9:15)

Sentence one (1) describes continuing to monitor user interactions while programming suggestions are provided. Sentence two (2) describes continuing to monitor interactions until the system is turned off. Sentences three (3) and four (4) introduces the flowchart of FIG. 3. Sentence five (5) describes the system monitoring user interactions. Sentence six (6) describes storing monitored interactions in a behavior log. Sentence seven (7) describes comparing the behavior log for a system users. Sentence eight (8) indicates the user profiles may be stored locally. Sentence nine (9) indicates that the user profiles may be stored elsewhere and loaded into memory. Sentence ten (10) indicates the user profile information may be stored in a database. No where in this portion does Williams describe prompting of a user.

In alternate embodiments of the present invention, different mechanisms may be beneficially employed to identify the current user of system 100 other than that described above. For example, in one embodiment the user of system 100 speaks into a microphone of system 100 (e.g., to activate

system 100). System controller 104 compares the audio input from the user to pre-stored audio samples from the plurality of possible users and identifies which of the pre-stored samples is closest to the audio input to identify the user. One example of suitable audio recognition software is SpeakerKey, commonly available from ITT Industries of Fort Wayne, Ind. Another suitable audio recognition development software is Speech Print ID, commonly available from Voice Print Systems of Dallas, Tex. In another alternate embodiment, a video image of the user of system 100 is scanned using one or more video cameras of system 100. System controller 104 compares the scanned image of the user to pre-stored visual scans of the plurality of possible users and identifies which of the pre-scanned images is closest to the scanned image of the current user to identify the user. One example of suitable video recognition software is True Face CyberWatch, commonly available from Miros Inc., of Wellesley, Mass. (Williams 10:37-59)

Sentence one (1) indicates that other methods of identifying users may be employed. Sentence two (2) describes the use of a microphone. Sentence three (3) through seven (7) describes how such audio inputs might be used to identify users. No where in this portion does Williams describe prompting of a user.

Thus, the present invention automatically determined and dynamically configures user preferences in an entertainment system. As discussed above, the present invention advantageously monitors the user and/or user inputs to automatically identify one of a plurality of different users of the entertainment system. In one embodiment, this monitoring is automatic and continuous, advantageously allowing the system to continually check for and identify new users of the system. Furthermore, after identifying the current user, the present invention advantageously configures various options in the entertainment system to the identified user in accordance with that user's preferences. Additionally, the present invention advantageously updates user profiles continually, allowing the present invention to automatically adjust to changing user preferences. (Williams 15: 26-40).

Sentence one (1) indicates that the system of Williams can automatically determine the presence of a user and accordingly configure user preferences. Sentence two (2) indicates that the system of Williams monitors user inputs and/or interactions. Sentence three (3) indicates that monitoring is automatic and continuous. Sentence four

(4) indicates that system is configured after identifying a user. Sentence five (5) indicates that the system of Williams can adjust to changing user preferences. No where in this portion does Williams describe prompting of a user.

Independent claims 1, 68 and 77 recite, among other things, prompting an audience member to enter their audience member identification if a probability that the audience member is in an audience of a receiver is less than a threshold.

As discussed above, Williams describes determining a probability representative of a match between past user behavior and a current behavior log (Williams 9:19-25) and determining that a match has occurred if the probability is greater than a predetermined threshold (Williams 9:25-30). Any decision taught by Williams in 9:19-35 is based upon the probability being greater than a threshold. In contrast, the methods recited in claims 1, 68 and 77 prompt the audience member if the probability that the audience member is in the audience is less than a threshold.

Moreover, although Williams describes determining a probability to determine a user match (Williams 9:19-30) and prompting a user for verification of the user's identity (Williams, FIG. 3, 9:64 –10:12), any comparison used for making a decision to prompt the user of a Williams system is the opposite of that recited in claims 1, 68 and 77. In Williams the prompting of the user is performed if their probability of being present is greater than the probability of another user being present. For example, prompting the most probable user with a prompt such as "Is that you, Joe?". That is, Williams prompts the user to confirm a presumably correct user identification produced by the Williams system. Further, as described above in connected with the cited portions of Williams, all comparisons of Williams are for a probability to be greater than some value (e.g., a

predetermined probability or a probability of another user), that is, the probability is high enough. In contrast, the methods recited in claims 1, 68 and 77 prompt the audience member if the probability that the audience member is in the audience is less than a threshold.

Thus, based at least on the foregoing deficiency, it is respectfully submitted that Williams fails to anticipate claims 1, 68 and 77, as well as claims dependent thereon. An indication of allowance is respectfully requested.

Claims 16-33, 35, and 37-43

The Office action rejected claims 16-43 as being anticipated by Williams. The applicant respectfully traverses these rejections.

Independent claim 16 recites, among other things, prompting an audience member to enter their audience member identification if a variable is not greater than a threshold.

As discussed above, Williams describes prompting of a user if their probability of being present (presumably a variable) is greater than the probability of another user being present. Thus, it is respectfully submitted that Williams fails to describe prompting an audience member to enter their audience identification number if the variable is not greater than a threshold. In fact, as noted above, Williams appears to work in the opposite manner.

Thus, based at least on the foregoing deficiency, it is respectfully submitted that Williams fails to anticipate claim 16, as well as claims dependent thereon. An indication of allowance is respectfully requested.

Claims 44-53

The Office action rejected claims 44-53 as being anticipated by Williams. The applicant respectfully traverses these rejections.

Independent claim 44 recites, among other things, suppressing prompting of an audience member if a determination made at a corresponding prompting occasion indicates that it is likely that the audience member is in an audience of a receiver.

As discussed above, Williams describes the opposite, that is, Williams describes prompting the user if it is likely that the user is present. Thus, it is respectfully submitted that Williams fails to describe suppressing the prompting of the audience member if it is likely that the audience member is in the audience of the receiver.

Thus, based at least on the foregoing deficiency, it is respectfully submitted that Williams fails to anticipate claim 44, as well as claims dependent thereon. An indication of allowance is respectfully requested.

Claims 54-67

The Office action rejected claims 54-67 as being unpatentable over Williams in view of Eldering (U.S. 6,457,010). The applicant respectfully traverses these rejections.

Independent claim 54 recites, among other things, prompting an audience member to enter an audience member identification if a heuristic indicates that the audience member is not in an audience of a receiver; neither Williams nor Eldering teach this.

Eldering describes a system for characterizing subscribers watching video or multimedia programming based on monitoring requests made by the subscribers.

Although, Eldering describes the use of heuristics rules to aid in forming a subscriber profile (Eldering, 2:43-54, 13:3-20 and 14:6-17), Eldering is silent with respect to the prompting of subscribers.

As discussed above, Williams describes the opposite of that recited in claim 54, that is, Williams describes prompting the user if it is likely that the user is present. Moreover, Williams is silent with respect to heuristics.

Even if one were to combine Eldering and Williams, resulting combinations would do the opposite of that recited in claim 54. Such combinations would prompt the user if the heuristic indicates that the audience member is in the audience. Thus, it is respectfully submitted that any combination of Williams and Eldering fails to describe prompting the audience member to enter the audience member identification if the heuristic indicates that the audience member is not in the audience of the receiver.

Thus, it is respectfully submitted that claim 54 as well as claims dependent thereon are allowable. An indication of allowance is respectfully requested.

Claims 91-93, 96-101, 103-115, 116-122, and 124-133

Office action rejected claims 91-102, 105-123 and 126-133 as being anticipated by Williams. The Office action rejected dependent claims 103, 104, 124 and 125 as unpatentable over Williams in view of Eldering. The applicant respectfully traverses these rejections.

Independent claims 91 and 116 recite, among other things, determine a variable representative of a likelihood an audience member is present in an audience of a receiver, and prompt the audience member to enter an audience member identification if the representative variable is not greater than a threshold.

As discussed above, Williams describes the opposite, that is, Williams describes prompting the user if their probability of being present (presumably a variable) is greater than the probability of another user being present. Thus, it is respectfully submitted that Williams fails to describe prompting of the audience member if the representative variable is not greater than a threshold.

Thus, based at least on the foregoing deficiency, it is respectfully submitted that Williams fails to anticipate claims 91 and 116, as well as claims dependent thereon. An indication of allowance is respectfully requested.

Claims 134-187

New independent claims 182, 184 and 186 recite, among other things, determining a count of audience members of a receiver, and determining a probability that an unidentified person is in the audience if the count is different from a number of logged-in audience members.

Williams does not appear to teach or suggest the use of a count of audience members. Moreover, Williams does not appear to teach or suggest the use of such a count as a condition for determining that the probability that an unidentified person is in the audience.

Eldering appears to be similarly deficient. Accordingly, claims 182, 184 and 186 and all claims depending therefrom are in condition for allowance.

Claims 188-193

New independent claims 188, 190 and 192 recite, among other things, logging-in the first audience member with a first audience identification based on a first probability and selectively providing a prompt for a second audience identification based on a second

probability, where the first and the second audience members may be in the audience at the same time.

While Williams teaches the use of a probability to identify and/or provide a prompt to confirm a user identity, Williams does not appear to teach or suggest that two audience members may be present in the audience simultaneously. In particular, while the system disclosed by Williams may produce a second probability to detect a change in the user, Williams does not facilitate the concurrent use of the entertainment system by more than one user. This is because, Williams concerns itself with determining a current user such that the user's preferences can be applied.

Eldering appears to be similarly deficient. Accordingly, claims 188, 190 and 192 and all claims depending therefrom are in condition for allowance.

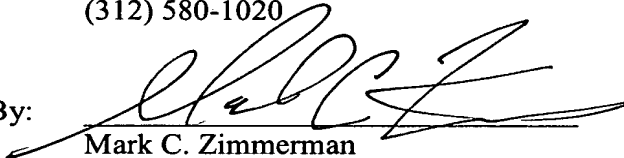
U.S. Serial No.: 09/883,546
Response to the Office Action dated February 3, 2006

If the Examiner is of the opinion that a telephone conference would expedite the prosecution of this case, the Examiner is invited to contact the undersigned at the number identified below.

Respectfully submitted,

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ANNOTATED SHEET

FIGURE
4B

